

# SHIELD



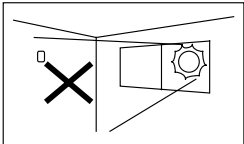
Passive Infrared Detector

## IR-830E / 830P

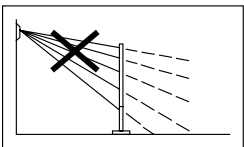
### SPECIFICATIONS

Power supply .....	9 ~ 16 VDC
Detection range .....	15 x 15m at 25°C
Alarm output .....	N.C, 30 VDC, 0.2A max.
Alarm period .....	3 ± 1 sec.
Current drain .....	13 mA, 12 VDC
Pulse count .....	2 / 3 selectable
Alarm LED .....	Red, can be disabled
Tamper switch .....	N.C cover open activates
RFI immunity .....	Ave. 20V/m (10~1000 MHz)
Mounting height.....	1.5 ~ 3.0m (5 ~ 10ft) 1.5m (IR-830P)
Mounting bracket.....	MB-95 (Optional)
Detectable speed.....	0.3 ~ 1.5m/sec.
Temperature .....	-20°C~50°C (-4°F~122°F)
Humidity .....	95% RH max.
Dimensions .....	100 x 60 x 42mm
Unit weight .....	78 grams

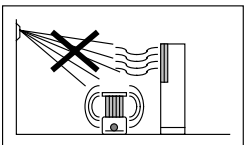
### INSTALLATION HINTS



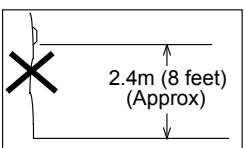
Do not install where the detector is exposed to direct sunlight or directly above strong sources of heat.



Make sure the detection area does not have obstruction (plants, screens, large pieces of furniture, curtains etc.) which may block the pattern of coverage.



Avoid locating in area which contain objects likely to produce a rapid change in temperature, such as air conditioners, central heating, etc.

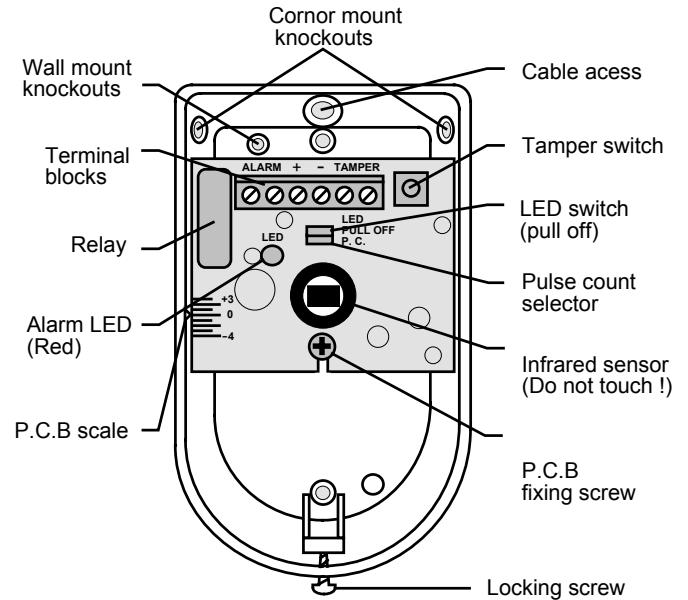


Install the detector at height approximately 2.4m (8 feet) from floor. Do not mount on unstable surface.

Avoid running alarm cable close to mains wires !!!

## Installation Instructions

### DESCRIPTION

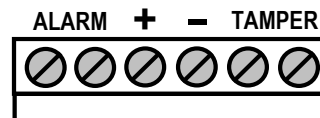


### INSTALLATION & WIRING

#### Installation

1. Open the front cover by loosening the locking screw.
2. Run the cable through cable access hole. Punch out the adequate knockouts and mount the unit base firmly with the screw provided at selected position.
3. Connect wires with the corresponding terminals according to the following instructions.
4. Resume front cover and supply adequate DC power, then walk test can be proceeded.
5. MB-95 mounting bracket can be applied for ceiling mount installation.

#### Wiring



**ALARM** : N.C loop of control panel

**+ -** : 9 ~ 16 VDC power supply

**TAMPER** : 24 hours N.C. loop of control panel

## WALK TESTING

Once the detector has been set up, walk test the entire area where coverage is desired. Apply power and wait 30 seconds for the unite to warm up time and then walk across the detection beams (invisible) at normal speed. Once coverage is as required, the alarm LED may be disabled by pulling the jumper to OFF.

**Note:** Conduct walk test at least once a year.

## VERTICAL ADJUSTMENT

If detection range is not satisfactory, the detection beams can be adjusted vertically by sliding the PCB up or down. If SHIELD is mounted higher than 2.4 meter (8 ft), you may require to slide the PCB upward to tilt the detection beams downward.

M/H	1.8m	2.0m	2.2m	2.4m	2.6m	2.8m	3.0m
B/P	Detection Coverage						
+3	1~8	N/A	N/A	N/A	N/A	N/A	N/A
+2	1~9	N/A	N/A	N/A	N/A	N/A	N/A
+1	1~11	2~14	3~13	N/A	N/A	N/A	N/A
0	1~12	1~15	2~15	4~15	6~15	6~15	7~15
-1	1~10	1~14	2~13	3~14	5~14	5~14	6~15
-2	1~9	1~13	2~11	3~13	5~13	5~13	5~14
-3	1~8	1~11	2~10	2~11	4~12	4~12	5~12
-4	1~7	1~10	1~9	2~10	3~11	3~11	4~10

M/H: Mounting Height

B/P: P.C. Board Position

## PULSE COUNT

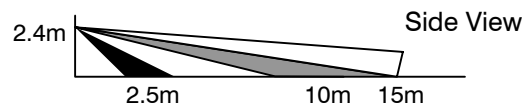
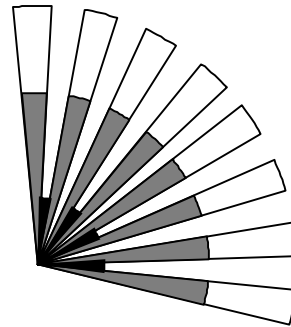
The **SHIELD** features intelligent pulse count which can reduce possibility of false alarm caused by environmental change or power line interference. The pulse count can be set count 2 or 3 pulse(s) by placing the jumper head on the corresponding pins. Alarm signal will only be sent if the selective pulse number is generated within delay time (20 seconds). IR-TEC's intelligent pulse count circuitry analyzes the width difference of pulse signal. When human motion is detected, subsequent pulse signal will tide over the pulse count setting and send an alarm signal immediately. Conventional pulse count detectors could miss an intrusion due to time delay of conventional pulse count.

## DETECTION PATTERN

Model: **IR-830**

110°, 15 x 15m at 25°C

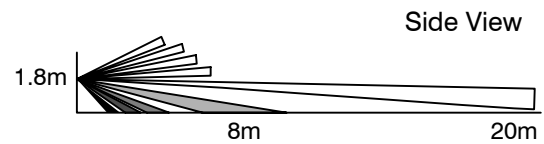
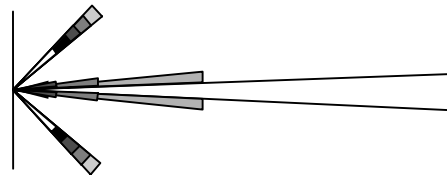
Top View



Model: **IR-830C**

20m corridor + 90°, 8m curtain

Top View



Model: **IR-830P**

15 x 15m, 100° pet alley

Top View

